BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,481	11/20/2001	Raymond Ming Wah Chau	12592-4	9849

7590 02/20/2003

James W. Collett, Ph.D.
Sheldon & Mak
225 S. Lake Avenue, 9th Floor
Pasadena, CA 91101

EXAMINER	
NICHOLS, CHRISTOPHER J	
ART UNIT	PAPER NUMBER
1647	

DATE MAILED: 02/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/989,481	CHAU, RAYMOND MING WAH	
	Examiner	Art Unit	
	Christopher Nichols, Ph.D.	1647	

-- The MAILING DATE of this communication appears on the cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 August 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-34* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-7, 9-10, and 12-16 (each in part), drawn to a method for promoting the survival, growth, proliferation, or maintenance of mammalian neurons comprising administering to the neurons an effective amount of a purified polypeptide comprising SEQ ID NO: 4 wherein the neurons are motorneurons, classified in class 514, subclass 2, for example.

II. Claims 1-5, 7-9, 11, and 15-16 (each in part), drawn to a method for promoting the survival, growth, proliferation, or maintenance of mammalian neurons comprising administering to the neurons an effective amount of a purified polypeptide comprising SEQ ID NO: 4 wherein the neurons are spinal cord neurons in an **injured but not severed spinal cord**, classified in class 514, subclass 2, for example.

III. Claims 1-5, 7-9, 11, and 15-16 (each in part), drawn to a method for promoting the survival, growth, proliferation, or maintenance of mammalian neurons comprising administering to the neurons an effective amount of a purified polypeptide comprising SEQ ID NO: 4 wherein the neurons are spinal cord neurons in a **severed spinal cord**, classified in class 514, subclass 2, for example.

IV. Claims 17-23, 25, and 28-32 (each in part), drawn to a method for promoting the survival, growth, proliferation, or maintenance of mammalian neurons comprising administering to the neurons an effective amount of a purified polypeptide

comprising SEQ ID NO: 3 wherein the neurons are motorneurons, classified in class 514, subclass 2, for example.

V. Claims 17-21, 23-24, 26, 29, and 31-32 (each in part), drawn to a method for promoting the survival, growth, proliferation, or maintenance of mammalian neurons comprising administering to the neurons an effective amount of a purified polypeptide comprising SEQ ID NO: 3 wherein the neurons are spinal cord neurons in an **injured but not severed spinal cord**, classified in class 514, subclass 2, for example.

VI. Claims 17-21, 23-24, 26, 29, and 31-32 (each in part), drawn to a method for promoting the survival, growth, proliferation, or maintenance of mammalian neurons comprising administering to the neurons an effective amount of a purified polypeptide comprising SEQ ID NO: 3 wherein the neurons are spinal cord neurons in a **severed spinal cord**, classified in class 514, subclass 2, for example.

VII. Claims 33 and 34 (each in part), drawn to a method of promoting the differentiation of neural stem cells into neural cells comprising administering to the neural stem cells an effective amount of SEQ ID NO: 3, classified in class 514, subclass 2, for example.

VIII. Claims 33 and 34 (each in part), drawn to a method of promoting the differentiation of neural stem cells into neural cells comprising administering to the neural stem cells an effective amount of SEQ ID NO: 4, classified in class 514, subclass 2, for example.

2. The inventions are distinct, each from the other because of the following reasons:

3. Although there are no provisions under the section for "Relationship of Inventions" in M.P.E.P. § 806.05 for inventive Inventions that are directed to different methods, restriction is deemed to be proper because these methods appear to constitute patentably distinct inventions for the following reasons: Inventions I, II, III, IV, V, VI, VII, and VIII are directed to methods that are distinct both physically and functionally, and are not required one for the other. Invention I requires search and consideration of administering SEQ ID NO: 4 to motorneurons, which is not required by any of the other Inventions. Invention II requires search and consideration of administering SEQ ID NO: 4 to spinal cord neurons in an injured but not severed spinal cord, which is not required by any of the other Inventions. Invention III requires search and consideration of administering SEQ ID NO: 4 to spinal cord neurons in a **severed** spinal cord, which is not required by any of the other Inventions. Invention IV requires search and consideration of administering SEQ ID NO: 3 to motorneurons, which is not required by any of the other Inventions. Invention V requires search and consideration of administering SEQ ID NO: 3 to spinal cord neurons in an injured but not severed spinal cord, which is not required by any of the other Inventions. Invention VI requires search and consideration of administering SEQ ID NO: 3 to spinal cord neurons in a **severed** spinal cord, which is not required by any of the other Inventions. Invention VII requires search and consideration of administering SEQ ID NO: 3 to neural stem cells, which is not required by any of the other Inventions. Invention VIII requires search and consideration of administering SEQ ID NO: 4 to neural stem cells, which is not required by any of the other Inventions.

4. This application contains claims directed to the following patentably distinct species of the claimed invention:

a. Peripheral nerve injuries

b. Musculoskeletal disorders

c. Spinal cord injuries

d. Head injuries

e. Strokes

f. Neuromuscular degenerative diseases

g. Amyotrophic lateral sclerosis

h. Spinal muscular atrophy

i. Peripheral neuropathy

j. Inhibition of scar formation

k. Diabetic peripheral neuropathy

l. Peripheral neuropathy resulting from AIDS

m. Peripheral neuropathy resulting from radiation treatment for cancer

n. Multiple sclerosis

o. Muscular dystrophy

p. Myasthenia gravis

q. Sensory neuronal function disorders

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 54 is generic.

If applicant selects any one of Inventions I, II, III, IV, V, or VI one species from the medical condition group must be chosen to be fully responsive.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, separate search requirements, and/or different classification, restriction for examination purposes as indicated is proper.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher James Nichols, Ph.D. whose telephone number is (703) 305-3955. The examiner can normally be reached on Monday through Friday, 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz, Ph.D. can be reached on 703-308-4623. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9307 for After Final communications. The fax phone numbers for the customer service center is 703-872-9305.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

CJN
February 6th, 2003

Gary L. Kunz

GARY KUNZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600